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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/534,185

06/03/2005

Robert Lohr

METPAT P76AUS

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20210

7590

01/26/2006

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EXAMINER

PATEL, DHARTI HARIDAS

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/534,185	Applicant(s) LOHR, ROBERT	
	Examiner Dharti H. Patel	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-26 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>05/06/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103[a] which forms the basis for all obviousness rejections set forth in this Office action:

[a] A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andre, US Patent No. 5,960,717, in view of Musachio, US Patent No. 5,277,285. With respect to Claim 14, Andre discloses a device for permanently controlling a ground for safety purposes [Col. 2, lines 23-31; the ground is controlled by selectively energizing and de-energizing consecutive rail segments so that a supply and a ground return path are always connected to the vehicle, i.e. the vehicle is always grounded] and for preventing a risk of electrical shock to passengers [Col. 4, lines 55-64] on a self-guided public transportation vehicle running on tires along a metal guide rail on a surface [Col. 1, lines 1-3], using at least one self-guiding assembly governing a movable directional assembly with at least one guide wheel traveling along the metal guide rail and utilizing electrical energy as a driving force [Col. 1, lines 54-64] the device comprises at least two electrical contact elements [Fig. 4, electrical contact elements 43 and 44; Col. 3, lines 61-67 and Col. 4, lines 1-12] separated from one another and in contact with the metal guide rail.

However, Andre does not go into detail concerning the circuitry required to form a current passage detector/ safety loop. Musachio is relied upon solely for the teaching of protection circuitry forming a current passage detect or safety loop.

Musachio discloses that the contact elements [Fig. 2, one on trolley 50 and one on trolley 52], together with a portion of the guide rail extending between the contact elements and a current passage detector, form a safety loop [the onboard circuit of Fig. 6 sends a signal through the ground rail 20 to the power controllers 38; Col. 7, lines 13-20]] supplied by a low voltage electrical generator [Fig. 6, RF signal generator 106] with terminals (BT+ and BT-), the detector that furnishing a signal indicating whether the safety loop is one of open or closed depending upon whether electrical contact at a level of the contact elements is one of satisfactory or unsatisfactory [Fig. 7, control circuit 238 comprises a detector that senses the presence of power rail 220. If power rail 220 is not sensed by hall effect switch 240, then rail 220 is de-energized], and when the electrical contact is unsatisfactory, either engaging safety elements or causing safety measures to be applied [Col. 7, lines 35-43; if the current collectors break contact with the rail, trolley actuator 100 automatically turns off, which de-energizes RF signal generator 106, which signals the power controllers 38 in Fig. 1 to de-energize rail 21. This creates a safety walkway for pedestrians, as well as effectively grounds the vehicle and thus prevents possible electrocution; col. 5 lines 16-20].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Musachio, which teaches a circuitry to form a current passage detector/safety loop, with the device of Andre for the benefit of an integrated power collecting trolley assembly that simultaneously supplies power to a vehicle from a single rail as well providing a ground to that rail.

With respect to Claim 15, Andre discloses that at least one of the at least two electrical contact elements is supported by the self-guiding assembly [Fig. 4, current collectors 43 and 44].

With respect to Claims 16 and 17, Musachio discloses that the low voltage electrical generator generates a continuous low voltage of 24 volts [Fig. 6, Col. 7 lines 13-20; RF signal generator 106 must output a continuous signal through the ground return power rail in order for power controllers 38 to keep rail 21 energized, in Fig. 1]. One of ordinary skill in the art can easily substitute another means of signaling the power controllers, such as a 24-volt generator. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable value by routine experimentation." In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)

With respect to Claim 18, Musachio discloses that a first contact element [Fig. 4, brush 78 held in place by Fig. 6 electromagnet 116] is electrically connected to a chassis [Fig. 6, connection from 116 to ground to motor 107] and to a negative terminal (BT-) of the electrical generator

[Fig. 6, the node below RF generator 106] and the other contact element [the brush held in place by electromagnet 114] is connected to a positive terminal (BT+) of the generator through the detector [from power take up trolley 110, through the microprocessor 99, to the RF generator 106], while the negative terminal (BT-) of the generator is connected to the chassis.

With respect to Claim 19, Musachio discloses that a first contact element is electrically connected to a negative terminal (BT-) of the electrical generator and a second contact element is connected to a positive terminal (BT+) of the generator through the detector, while the positive terminal (BT+) is connected to a chassis [This is simply a reversal of polarity of Claim 18, and is representative of a positive grounded system routinely found in many vehicles and is an art recognized equivalent configuration.

With respect to Claim 20, Musachio discloses that each of the contact elements is one of a sliding or friction shoe that is displaced along the metal guide rail [Fig. 4, brush 78; Col. 4, lines 51-55].

With respect to Claim 21, Musachio discloses that the detector is a coil of an electromagnet [Fig. 7 coil 250] which actuates contacts of an interrupt switch [Fig. 7, the contacts of coil 250; when coil 250 de-energizes, rail 220 will be disconnected from the source 40 and connected to ground 42, in Fig. 1].

With respect to Claim 22, Andre discloses that the contact elements [Fig. 4, electrical contact elements 43 and 44] are longitudinally attached on either side of at least one guide wheel [Col. 3, lines 49-54].

With respect to Claim 23, Musachio discloses that the contact elements are attached sequentially one behind the other on a chassis at a front of a series of the vehicles [Col. 4, lines 3-12].

With respect to Claim 24, Musachio discloses that the safety loop is provided at a front of a series of the vehicles with the low voltage electrical generator (BT+ and BT-) and another safety loop at a rear of the series with another low voltage electrical generator (BT+ and BT-) [Fig. 2 shows power take up trolley 52 at the front of the vehicle, and return trolley 50 at the rear of the vehicle. Each one must have its own safety loop so that when the Hall-effect switch 240 of Fig. 7 senses the presence/ absence of rail 220, it will energize/ de-energize that rail segment accordingly; Col. 4, lines 55-64].

With respect to Claim 25, Musachio discloses that the negative terminals (BT-) on the low voltage electrical generator are connected to each other and to a chassis [This is the plural of Claim 19 where more than one safety loop has to be interconnected to share a battery, motor, etc. It would be obvious to one of ordinary skill in the art that the method of connecting two negative-chassis grounded systems would be to connect the two negative wires from each loop, then ground them to the chassis to provide a more reliable ground and as a result, provides a safer system].


With respect to Claim 26, Musachio discloses that the negative terminals (BT-) on the low voltage electrical generators are connected to each other and the positive terminals (BT+) are connected to each other and to a chassis [This is simply a reversal of polarity of Claim 25, and is representative of a positive grounded system routinely found in many vehicles and is an art recognized equivalent configuration.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dharti H. Patel whose telephone number is 571-272-8659. The examiner can normally be reached on 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2800, Ext. 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



PHUONG T. VU
PRIMARY EXAMINER